

Andromeda Metals Limited ABN: 75 061 503 375

#### Corporate details:

ASX Code: ADN Cash: \$1.309 million (at 31 March 2018) Issued Capital: 896,028,227 ordinary shares 486,280,451 ADNOB options 2,476,507 unlisted options

### Directors:

Rhod Grivas Non-Executive Chairman

James Marsh Managing Director Nick Harding Executive Director and

Company Secretary

Andrew Shearer Non-Executive Director

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## METALS

# **ASX** announcement

25 June 2018

## China marketing confirms increasing demand for Carey's Well halloysite-kaolin

- Recent visit to key Chinese customers confirm significant increase in price and demand for the unique properties of Carey's Well halloysite-kaolin.
- Based on positive meetings with indicative offtake customers, ADN has formalised the Joint Venture on the Poochera Project.
- Sampling of the existing drill samples has commenced to lead to an upgraded resource and scoping study.
- HPA results to date of 99.9855% Al<sub>2</sub>O<sub>3</sub> continue to be refined towards a 99.99% (4N) target.

### Summary

As part of the due diligence process for the Poochera Project, Andromeda Metals executives recently visited China to determine the current market for halloysite-kaolin by meeting key customers and distributors. Previously eight Chinese porcelain manufacturing companies had signed Letters of Intent with Minotaur Exploration Limited (ASX:MEP) for offtake of in excess of 200,000tpa of Carey's Well halloysite-kaolin product.

Positive meetings were held with previously visited companies by Minotaur in addition to many new ones. All parties confirmed that they were still very keen to secure supply of the halloysite-kaolin material which some have already tested and approved, and that their demand had increased in most cases, confirming the market potential.

Chinese Government anti-pollution measures have resulted in the closure of numerous mines. This combined with limited global availability of high quality halloysite kaolin has Chinese porcelain producers concerned for supply security and resulted in price increases.

There is also considerable interest from Chinese kaolin processors who have significant spare capacity due to the decrease in availability of high quality raw materials, combined with higher demand from the domestic porcelain sector. Halloysite kaolin is a relatively high value industrial mineral that is scarce in the world, and Carey's Well is uniquely high in halloysite. Consequently, the Carey's Well halloysite-kaolin is seen as a very valuable and soughtafter resource for the Chinese ceramic industry, along with other potential customers in many other parts of the world market.

The Company previously signed a binding Heads of Agreement with Minotaur covering their Poochera Halloysite-Kaolin Project. ADN has now completed its due diligence investigations, and has exercised its option to enter into the Joint Venture.



Figure 1 New major porcelain factory due to open in China in 2019 that wishes to lock in long-term supply of Carey's Well material



Figure 2 Andromeda Metals Managing Director James Marsh meeting with General Manager of a large Chinese ceramic factory in China

## Background

The Halloysite-Kaolin Project covers two main geographic areas of interest, both situated in the western province of South Australia (Figure 3). The main area of focus, the Poochera Halloysite-Kaolin Project on the Eyre Peninsula comprises three tenements and is located approximately 635kms west by road from Adelaide and 130kms east from Ceduna (Figure 4). The port of Thevenard at Ceduna offers export facilities appropriate for likely future production.

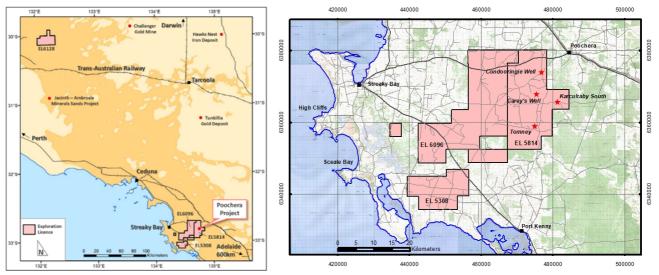


Figure 3 Project location plan

Figure 4 Poochera tenements and key halloysite-kaolin deposits

High quality halloysite-kaolin deposits occur extensively across the Poochera Project area (Figure 4) making this a region of global significance for the mineral and capable of supporting a considerable long-life mining operation should final feasibility studies determine the project to be economically viable.

Halloysite is a rare derivative of kaolin where the mineral occurs as nanotubes. Halloysite has a wide variety of industrial uses beyond simple kaolin and commands a significant premium above the average kaolin price. The Poochera kaolin deposits contain variable admixtures of kaolin and halloysite that appear amenable to selective mining to produce specific low, medium and high halloysite blends for the ceramic markets, new nanotechnology applications and as a strengthening additive in cement and petroleum fraccing industries.

The northern project area includes the near pure halloysite Camel Lake deposit on EL6128 (Figure 3) which could potentially be processed to provide a marketable pure product to be used to further upgrade halloysite blend products from Carey's Well and for the development of halloysite nanotubes and their potential use as replacements for carbon nanotubes in the areas of energy storage and carbon-hydrogen capture and storage.

Extensive testwork has been completed by Minotaur on the Carey's Well deposit, including resource drilling, bulk sampling, pilot test trials and marketing for ceramics and other conventional applications, and the deposit is now considered ready for Mining Lease application as part of feasibility evaluations. Minotaur has also undertaken preliminary research into innovative use of halloysite nanotubes as strengthening additive for proppants, concrete and other uses (refer Minotaur's Quarterly Reports June 2015, December 2016 and June 2017).

The potential for Carey's Well to produce high purity alumina (HPA) represents a significant opportunity for further development. Initial testwork undertaken on Carey's Well material by Minotaur has closed in on a targeted 4N 99.99% pure  $Al_2O_3$  product for HPA manufacture with extremely low impurities and high extraction rate achieved to date. Additional testwork is currently underway to confirm the achievement of 4N quality product.

With the execution of the option to enter into the Joint Venture over the Poochera Project, ADN can acquire up to 75% of the project by either sole funding \$6.0M over 5 years or alternatively a decision to mine is made by the Joint Venture partners, with an initial 51% interest earned by the Company through the expenditure of \$3.0M on advancing the project within the first 2 years.

## **Rover Joint Venture**

Following completion of their due diligence activities on the Company's Rover Copper-Gold Project in the Northern Territory, Minotaur has elected to not proceed with the Rover Joint Venture. Minotaur completed a site visit and trialled geophysics (Squid EM) on selected prospects. Expenditure incurred will contribute to meeting the current year statutory expenditure commitment and serve to keep the ground in good standing.

Andromeda Metals continues to hold the view that the Rover Copper-Gold Project is a highly prospective project. The Company remains amenable to third party involvement at Rover and invites parties interested in reviewing this outstanding copper-gold-cobalt exploration opportunity to make contact.

James Marsh Managing Director